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( electric\* near generat\* ) and ( mems or  
"micro electromechanical" ) and "low  
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Refine Search

(electric\* near generat\*) and (mems or "micro electromec

Title	Pub. Date	Int. Class	App. Num.
1. <u>(WO 2008/073140) WRIST PLETHYSMOGRAPH</u>	19.06.2008	A61B 5/021	PCT/ US2007/0
A pulse monitoring plethysmograph system for establishing a history of the pulses of the user over an extended period of time, comprising a piezoelectric sensing element mounted within said housing, and fixed to the housing, a force transmitting member positioned to cause the sensing element to flex in response to an external force and to <b>generate</b> a current, and a transimpedance amplifier. The transimpedance amplifier converts the current <b>generated</b> by the flexing of the piezoelectric element into a voltage signal and an analog to digital converter converts the voltage signal into a digital data. A digital memory storing member is provided for storing the digital data and establishing a history of data over an extended period of time.			
2. <u>(WO 2008/062395) TREMOR REDUCTION SYSTEMS SUITABLE FOR SELF-APPLICATION AND USE IN DISABLED PATIENTS</u>	29.05.2008	A61N 1/04	PCT/ IL2006/00
Apparatus for tremor reduction including a sensor for sensing muscle movements, a stimulation/recording electrode unit for providing electrical stimulation (FES) to a muscle, the stimulation/recording electrode unit including a filter for filtering around a tremor frequency to ignore high frequency noise associated with the muscle movements that were sensed, and a processor for <b>generating</b> a set of relationship between FES, called FES-muscle-response relationships, and for selecting a new FES for application to the muscle in accordance with acquired muscle-response relationships. An apparatus and a method for effecting proper alignment and application of a stimulation/recording electrode unit to a muscle.			
3. <u>(WO 2008/054394) METHOD AND APPARATUS FOR DETECTION OF TOXIC AGENTS USING PHOTOSYNTHETIC ORGANISMS</u>	08.05.2008	C12Q 1/02	PCT/ US2006/0
A water quality analyzer for real-time detection according to the invention (100) comprises a biased AC electro-osmosis (ACEO) cell to be analyzed having a plurality of photosynthetic organisms therein, and concentrating the plurality of photosynthetic organisms into a defined region. A photodetector (157) is provided for obtaining a measured photosynthetic activity of the plurality of photosynthetic organisms in response to incident light from a light source (105), wherein chemical, biological or radiological agents reduce a nominal photosynthetic activity of the photosynthetic organisms. An electronics package (158) analyzes the measured photosynthetic activity to indicate a presence of a toxic agent.			
4. <u>(WO 2008/052166) SYSTEMS AND METHODS FOR ALTERING BRAIN AND BODY FUNCTIONS AND TREATING CONDITIONS AND DISEASES</u>	02.05.2008	A61N 1/00	PCT/ US2007/0

activities regarding patents and

the PCT

The present invention relates to systems and methods for management of brain and body functions and sensory perception. For example, the invention provides systems and methods of sensory substitution and sensory enhancement (augmentation) as well as motor control enhancement. The invention also provides systems and methods of treating diseases and conditions, as well as providing enhanced physical and mental health. The invention provides sensory substitution, sensory enhancement, and related effects.

5. (WO 2008/048850) MINIATURE NON-DIRECTIONAL MICROPHONE

24.04.2008 H04R 11/04 PCT/  
US2007/0

A miniature microphone comprising a diaphragm compliantly suspended over an enclosed air volume having a vent port is provided. The stiffness of the diaphragm with respect to displacement by acoustic vibrations is controlled principally by the enclosed air volume and the vent port. The microphone may be formed using silicon microfabrication techniques and has sensitivity to sound pressure substantially unrelated to the size of the microphone over a range of realistic sizes. The diaphragm is rotatively suspended for movement through an arc in response to acoustic vibrations, for example, and has a surrounding perimeter seal separating the diaphragm from its support structure. The air volume behind the diaphragm...

6. (WO 2008/041129) SYSTEMS AND METHODS FOR IMPROVING A COGNITIVE FUNCTION

10.04.2008 No IPC PCT/  
Found IB2007/0

In many aspects, the invention relates to systems and methods for providing cognitive therapy through stimulation of activating and inhibiting neurons in the brain, thereby modulating neural firing rhythms. The stimulation of neurons is controlled through a feedback process whereby neurons are stimulated based on naturally occurring **electrical** and chemical activity in the brain. Neurons in specific regions of the brain may be targeted to modulate signaling pathways and establish communication between these regions.

7. (WO 2008/039852) PIEZOELECTRIC ENERGY HARVESTER

03.04.2008 H01L 41/113 PCT/  
US2007/0

A mechanism for capturing mechanical energy and converting it to **electrical** energy for use continually charging or providing energy to battery-powered devices comprises a plurality of elongated piezoelectric elements mounted at one or more support points to one or more substrates. The plurality of piezoelectric elements are preferably structured and arranged so that at least each three-dimensional coordinate axis has a dominant mode of deflection in a plane normal to the axis, in order to permit harvesting energy from forces applied in any direction. The orientation of the energy harvesting mechanism to the source of forces. This results in improved coupling of the transducer with...

8. (WO 2008/030656) PERCUTANEOUS ELECTRODE ARRAY

13.03.2008 A61N 1/04 PCT/  
US2007/0

A percutaneous electrode array is disclosed for applying therapeutic **electrical** energy to a treatment site in the body of a patient. The array comprises a plurality of electrode microstructures which are inserted into the epidermis, thereby overcoming the inherent **electrical** impedance of the skin and obviating the need to prepare the skin surface prior to an electro-therapy treatment. The portions of the array that will be inserted into the skin are electrode tips are preferably insulated to eliminate an uncomfortable high **electric** field that can arise at the edges and tips of the electrode...

9. (WO 2008/021191) PIEZOELECTRIC COMPOSITIONS

21.02.2008 B32B 27/30 PCT/  
US2007/0

Piezoelectric compositions are provided wherein mechanical and piezoelectric properties can be separately modulated. Preferred compositions are blends that comprise: (a) a piezoelectrically active polymer and (b) a matrix polymer, methods of making, and use of such resin blends. The preferred resin blends of the invention can include high piezoelectricity, mechanical strength and flexibility, convenient fabrication process, and stability at high temperatures.

10. (WO 2007/142934) THERMOELECTRIC GENERATOR WITH MICRO-ELECTROSTATIC ENERGY CONVERTER 13.12.2007 H01L 35/00 PCT/US2007/00

A power supply comprises a thermoelectric **generator**, an initial energy management assembly, an electrostatic converter and a final energy management assembly. The thermoelectric **generator** is adapted to **generate** an **electrical** activation energy with sufficiently high voltage in response to a temperature gradient acting across the thermoelectric **generator**. The initial energy management assembly is connected to the thermoelectric **generator** to receive and condition the **electrical** activation energy produced by the thermoelectric **generator**. The electrostatic converter is connected to the initial energy management assembly and is activatable by the **electrical** activation energy received therefrom and is configured to **generate** electrical energy.

11. (WO 2007/136726) PORTABLE ASSEMBLIES, SYSTEMS, AND METHODS FOR PROVIDING FUNCTIONAL OR THERAPEUTIC NEUROSTIMULATION 29.11.2007 A61N 1/18 PCT/US2007/00

Neurostimulation assemblies, systems, and methods make possible the providing of short-term therapy or diagnostic testing by providing electrical connections between muscles or nerves inside the body and stimulus **generators** or recording instruments mounted on the surface of the body outside the body. Neurostimulation assemblies, systems, and methods may include a carrier and a removable electronics pod, the pod containing stimulation **generation** circuitry, a power input bay to hold a disposable power source, and user interface components. The assemblies and systems are adapted to provide coordinated neurostimulation to multiple regions of the body.

12. (WO 2007/135682) APPARATUS FOR GENERATING PRESSURE AND METHODS OF MANUFACTURE THEREOF 29.11.2007 H04R 1/40 PCT/IL2007/00

Methods for manufacturing actuator apparatus for **generating** a physical effect, at least one attribute of which corresponds to at least one digital input signal sampled periodically in accordance with a clock, the apparatus comprising at least one actuator device, the method comprising manufacturing at least one actuator device including providing an array of moving elements, wherein each individual moving element is constrained to travel alternately back and forth along a respective axis responsive to an alternating magnetic field and is constrained to travel alternately back and forth along a respective axis responsive to an alternating magnetic field thereupon when in the presence of an alternating magnetic field, providing at least one latch operative to selectively latch at least one

13. (WO 2007/135681) ARRAYS OF CURRENT BEARING ELEMENTS USEFUL FOR GENERATING PRESSURE WAVES 29.11.2007 H04R 1/40 PCT/IL2007/00

Actuator apparatus for **generating** a physical effect, at least one attribute of which corresponds to at least one characteristic of a digital input signal sampled periodically in accordance with a clock, the apparatus comprising at least one actuator device, each actuating device including an array of moving elements, at least one latch operative to selectively latch at least one subset of the moving elements in to prevent moving elements from responding to an alternating electromagnetic force, a magnetic field control system operative to receive the clock and, accordingly, to control application of the electromagnetic force to the elements, and a latch controller wherein the magnetic field control system comprises a magnetic field generator.

14. (WO 2007/135680) APPARATUS AND METHODS FOR GENERATING PRESSURE WAVES 29.11.2007 H04R 9/04 PCT/IL2007/00

Actuator apparatus for **generating** a physical effect, at least one attribute of which corresponds to at least one characteristic of a digital input signal sampled periodically in accordance with a clock, the apparatus comprising at least one array of moving elements each constrained to travel along a respective axis in response to an alternating electromagnetic force applied to the array of moving elements, at least one latch operative to selectively latch at least one subset of said moving elements in at least one latching position thereby to prevent the individual moving elements from responding to an alternating electromagnetic force, an electromagnetic field control system operative to receive the clock and, accordingly, ...

15. (WO 2007/135679) VOLUME AND TONE CONTROL IN DIRECT DIGITAL SPEAKERS 29.11.2007 H04R 1/22 PCT/IL2007/00

A system that includes a direct digital speaker volume control device configured to be coupled to a direct digital speaker. The direct digital speaker includes many pressure producing elements being adapted to **generate** a sound at a sound pressure level (SPL) and at a given frequency in response to a digital signal, without using digital to analog converter. The direct digital speaker inherently exhibits a frequency response throughout its entire frequency range. The direct digital speaker volume control device includes a module for providing few filters each having a distinct cutoff frequency such that the sound is attenuated below its cutoff frequency and an attenuation response above the filter's cutoff frequency. And a selector ...

16. (WO 2007/135678) DIRECT DIGITAL SPEAKER APPARATUS HAVING A DESIRED DIRECTIVITY PATTERN 29.11.2007 H04R 1/40 PCT/IL2007/00

Direct digital speaker apparatus receiving a digital input signal and **generating** sound accordingly, the apparatus comprising an array of pressure-producing elements and a controller operative to compute a timing pattern determining if and when each pressure-producing element is actuated to produce a desired directivity pattern.

17. (WO 2007/127305) SYSTEMS AND METHODS FOR MONITORING AND CONTROLLING INTERNAL PRESSURE OF AN EYE OR BODY PART 08.11.2007 A61M 39/22 PCT/US2007/00

Systems and methods for automatically monitoring and controlling pressure in a body part are disclosed. The systems include an implantable tube having an open end of the tube implanted in the body part, an implantable valve coupled with the tube having at least one open state and a closed state, a sensor for measuring pressure, and an implantable control device coupled with the sensor and the valve. The control device switches the valve between at least one open state and the closed state, based on pressure information received from the sensor. When the valve is in the at least one open state, fluids drain from the body part due to a difference in pressure between the open ends of the tube. Methods for using the systems and methods are also disclosed.

18. (WO 2007/124384) APPARATUS AND METHOD FOR IMAGING WITH SURFACE ENHANCED COHERENT ANTI-STOKES RAMAN SCATTERING (SECARS) 01.11.2007 G01N 21/65 PCT/US2007/00

The embodiments of the invention are directed to improved SERS and SECARS devices and method of manufacturing and using the same. In one embodiment of the invention, a device having at least one laser, a sample stage and a detector, wherein the sample stage is moveable and has a scanning mirror, is disclosed. In another embodiment of the invention, the device has at least one laser, a scanning mirror, a sample stage having a scanning mirror, and a detector, wherein the scanning mirror is adapted to steer a laser beam across a surface of the sample stage.

19. (WO 2007/123293) PACKAGING STRUCTURE OF MEMS MICROPHONE 01.11.2007 H04R 19/04 PCT/KR2006/000001

The present invention relates to a packaging structure of a **MEMS** microphone comprising: a first case having an open first end and a sound hole formed therethrough; a flexible printed circuit board including a first region having a hole corresponding to the sound hole, a second region having a first electrode for transmitting an **electrical** signal to an external circuit, and a connecting portion for connecting the first region and the second region; a transducer and an amplifier disposed in the first region of the flexible printed circuit board; and a second case sealing the open first end of the first case, the second case including an extension hole for extending the flexible printed circuit board.

20. (WO 2007/121092) MICROMACHINED, PIEZOELECTRIC VIBRATION-INDUCED ENERGY HARVESTING DEVICE AND ITS FABRICATION 25.10.2007 H01L 41/113 PCT/US2007/00

A piezoelectric power **generator** (100), capable of harvesting energy from environmental vibration with lower frequency, includes a frame (105) supporting a piezoelectric panel (125). The piezoelectric panel includes an upper electrode and a piezoelectric layer (115) formed on the upper electrode, a dielectric layer and an end mass (130) formed on the piezoelectric layer. The end mass provides weight to cause the piezoelectric layer to vibrate within the frame and causes the **generation** of **electrical** power. The **generator** is preferably formed by a **MEMS** process.

21. (WO 2007/116402) CONCURRENT MONITORING OF A PLURALITY OF SAMPLES BY AN ARRAY OF BIOSENSING ELEMENTS 19.10.2007 G01N 21/64 PCT/IL2007/00

A system and method are presented for monitoring detectable responses from multiple biosensing elements while in contact with m...  
array. The system (1000) comprises an exciting unit (100), and a detection unit (120). The exciting unit (100) is configured for produ...  
signals (102) each characterized by a frequency differing from those of the other exciting signals, and exciting a corresponding arra...  
elements (110), thereby enabling each biosensing element to **generate** a response signal (130) tagged by the different frequency. ...  
comprises a single receiving element associated with said array of biosensing elements (110) and configured for concurrently re...

22. (WO 2007/112404) ELECTROACOUSTIC TRANSDUCER SYSTEM AND  
MANUFACTURING METHOD THEREOF

04.10.2007 H04R 1/24 PCT/  
US2007/0...

A transducer system may include multiple transducers. The transducers may be mounted together and may include either the same...  
transducer types, depending on the desired applications. The transducers may be receivers which are aligned and joined. A couplin...  
and coupled to one or both of the transducers.

23. (WO 2007/109323) PIEZORESISTIVE CANTILEVER BASED NANOFLOW AND  
VISCOSITY SENSOR FOR MICROCHANNELS

27.09.2007 G01B 5/28 PCT/  
US2007/0...

This invention provides a sensor to measure physical and/or chemical properties of viscous fluids. The sensor is based on microfab...  
cantilevers. Deflection of these cantilevers is read out using, e.g., a wheatstone bridge to amplify and convert the deflection into a v...  
cantilevers and/or tips attached thereto, can be chemically or physically modified using reagents specific to interact with analytes to...  
cantilevers can be integrated in a microfluidic system for easy fluid handling and the ability to manage small quantities of fluids.

24. (WO 2007/105663) ELECTRIC POWER SUPPLY SYSTEM AND ELECTRIC POWER  
SUPPLY SYSTEM FOR MOTOR VEHICLE

20.09.2007 H02J 17/00 PCT/  
JP2007/0...

To provide for a movable electronic device a power receiving device that when charging a battery, simplifies charging of the battery...  
is a power supply means, and does not have faults due to an external factor relating to a relay terminal, or damage of the relay term...  
directly connecting the battery and the power feeder, and further, to provide an electronic device including the power receiving devi...  
booster antenna for supplying **electric** power are provided in a movable electronic device. The antenna circuit receives a radio sign...  
electromagnetic wave via the booster antenna, and **electric** power that is obtained through the receiving of the radio signal i...

25. (WO 2007/103835) PHYSIOLOGIC MONITORING SYSTEMS AND METHODS

13.09.2007 A61B 5/00 PCT/  
US2007/0...

In some embodiments, a wearable/disposable physiologic monitor comprises an integrated circuit including signal conditioning circ...  
control logic, and mode-selection logic for setting an operating mode of the circuit to stand-alone or peripheral modes. In the stand...  
control logic periodically stores data packets including multiple sensor data types in a digital memory. In the peripheral mode, the d...  
to a microcontroller for processing. The monitor includes sensors such as electrocardiogram (ECG) electrodes, accelerometers, an...  
Monitor and/or firmware piracy are reduced by initializing physiologic monitors in the field upon verifying user au...

Next 25 records

Start At

Search Summary

**electric\* NEAR generat\***: 208639 occurrences in 49857 records.

**mems**: 98326 occurrences in 6910 records.

**"micro electromechanical"**: 6203 occurrences in 1673 records.

(mems OR "micro electromechanical"): 9170 records.

(electric\* NEAR generat\* AND (mems OR "micro electromechanical")): 1164 records.

**"low frequency"**: 104516 occurrences in 23842 records.

((electric\* NEAR generat\* AND (mems OR "micro electromechanical"))) AND "low frequency": 132 records.

Search Time: 6.57 seconds.

